


Memo to File

From: Peter Brinton, Reclamation Specialist / Mining Engineer
To: Paul Baker, Minerals Program Manager 
Cc: Wayne Western, Reclamation Specialist / Mining Engineer

Subject: Site-Specific Reclamation Surety Amount, Long Ridge LLC, Long Ridge Iron Mine, S/027/0119, Millard County, Utah

Based on the proposed Notice and recent Division experience in reclaiming mine sites in the area, a site-specific reclamation cost estimate is appropriate for this project. The Division's average cost per acre bond amount for 10 acres is \$62,200. Site-specific considerations suggest that \$48,000 is an appropriate surety amount.

The proposed surety amount is rounded up from an estimated line-item reclamation quote of \$47,960.30, which was provided for Long Ridge LLC by Construction & Mining Service Inc. (CMSI), and which considered site-specific conditions, the general description of mining in the completed Notice, mobilization, indirect costs, and inflation. Equipment includes a CAT D6 dozer and an unidentified excavator. The estimate just exceeds the minimum acceptable amount calculated by the BLM of \$47,866.

In 2012, the Division contracted Rasmussen Excavation LLC to reclaim the New 6 Mine (S/027/0111), which had 4 acres of disturbance. The overall reclamation cost was \$16,300, which included mobilization and indirect costs. The average cost per acre (including mobilization and indirect costs) was \$4,070. The New 6 Mine is 60 miles further away, and required significantly more earthwork per acre. The Long Ridge Iron Mine would not require an uphill push, and will be mined at a shallower depth. Conservatively applying the New 6 Mine average cost per acre suggests that the Long Ridge Iron Mine could be reclaimed in 2013 for significantly less than \$40,700.

Given the difference between site-specific cost estimates and the Division's average cost per acre bond amount, I recommend that the Division require \$48,000.00 as the approved surety amount for the Long Ridge Iron Mine, consistent with R647-3-111.3.12. This information is correct to the best of my knowledge.

Peter Brinton
Reclamation Specialist / Mining Engineer
Minerals Regulatory Program

Attachment: 2012 New 6 Mine Reclamation Costs
O:\M027-Millard\S0270119-LongRidgeIronMine\draft\memo-08282013b.docx

New 6 Mine Reclamation Costs by Activity Type

Direct Costs			
Earthwork		66.5% of Direct Costs	\$ 7,226
Grading, Minor Ripping	CAT D8	inc. idle time	\$ 4,893
Pull up dumps	CAT 320	inc. idle time	\$ 2,333
Demo (minor demo included in Earthwork)		0.0% of Direct Costs	\$ -
Trash Removal		23.1% of Direct Costs	\$ 2,510
Load Trash	CAT 320	inc. idle time	\$ 679
Labor (Rasmussen)	1 Individual on 2 days	inc. idle time	\$ 560
Haul Trash (Rasmussen)	End Dump	haul plus idle time	\$ 1,271
Trash Disposal (Rasmussen)	Millard Co. landfill	Reported to be \$0	\$ -
Vegetation		10.4% of Direct Costs	\$ 1,131
Purchase Seed	GBRC, Alison Whitaker	billed	\$ 331
Seeding Work (DOGM/BLM)	P. Brinton/J. Mansfield	good assumptions	\$ 200
Seeding Mob/Demob (DOGM/BLM)	P. Brinton/J. Mansfield	good assumptions	\$ 600

Indirect Costs			
Mob/Demob		37.4% of Direct Costs	\$ 4,063
Distance (from Salina, UT)	160 mi		
1-Way Travel Time (from Salina, UT)	3.1 hrs		
Dozer (CAT D8)			\$ 2,033
Trackhoe (CAT 320)			\$ 1,129
End Dump			\$ 901
Planning, Site Visits, & Contracting		12.4% of Direct Costs	\$ 1,347
DOGM Office (meetings, calls, etc)		good assumptions	\$ 944
DOGM Site Visits	w/o seeding work/mob	good assumptions	\$ 403

Cost Summary			
Direct Costs			\$ 10,867
Indirect Costs (including Mob/Demob, PI		49.8% of Direct Costs	\$ 5,410

Total Project Cost (rounded up to nearest \$100)	\$ 16,300
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Rasmussen	Division+BLM	Total
\$ 13,799	\$ 2,478	\$ 16,277

Base Cost per Acre (w/o Indirect costs)	\$ 2,717
1st Acre Cost (Base Cost + Indirect)	\$ 8,127

Acres
4